REMARKS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 7-8, 10-11, 13-14, 16-17, 19-20, 28-29, 31-32, 34-35, 37-38, 40-41 and 50-52 are pending in the present Application. Claims 1-6, 9, 12, 15, 18, 21-27, 30, 33, 36, 39, 42-49 were cancelled by previous amendments. The present Amendment amends Claims 7, 8, 28, 29, and 50; and adds new Claims 51-52 without introducing any new matter.

The pending Office Action of October 10, 2007 rejected Claims 7, 8, 10, 11, 13, 14, 16, 17, 19, 20, 28, 29, 31, 32, 34, 35, 37, 38, 40, 41 and 50 under 35 U.S.C. § 102(e) as being anticipated by Sakoda et al. (U.S. Patent No. 6,563,881, hereinafter "Sakoda"); and Claim 50 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Sakoda.

Independent Claim 7 is amended to recite "by variably controlling a duration of a multiplex transmission interval between a first transmission of a symbol and a subsequent transmission of a symbol." These features find non-limiting support in Applicants' disclosure as originally filed, for example at Fig. 13A-C, and in the Specification at p. 25, ll. 20-23. Independent Claim 28, directed to a radio transmitting apparatus, is amended to recite a similar feature. Claim 50 is also amended to correct a minor formal issue.

In response to the rejection of Claim 7 under 35 U.S.C. § 102(e) over Sakoda, Applicants respectfully traverse the rejection and request reconsideration thereof, as next discussed.

The applied reference Sakoda describes a communication method where transmission symbols are arranged at intervals on a frequency axis. (Sakoda, Abstract, Figs. 7A-D, Fig. 10.) Sakoda explains with reference to Figs. 7A-D that a null symbol insertion unit 104 inserts null symbols to make the symbol rate equal to the maximum transmission rate. (Sakoda, col. 9, ll. 41-49.) In the examples given in Sakoda, a certain number of null

symbols may be inserted into the transmission data to obtain the desired maximal transmission rate of 128kbps. (Sakoda, col. 9, l. 50, to co. 10, l. 7.) For this purpose, Sakoda uses his null symbol insertion unit 104 that introduces a certain number of null symbols based on the Equation [1] into a defined frame. (Sakoda, col. 10, ll. 8-23, Fig. 6.) However, Sakoda fails to teach that "information [is] changed by ***variably controlling a duration of a multiplex transmission interval between a first transmission of a symbol and a subsequent transmission of a symbol***," (emphasis added) as required by amended Claim 7. In Sakoda, a predetermined number of null symbols are introduced based on a formula, so that a fixed maximal transmission rate can be achieved, and such a feature does not ready on a variable control of a duration of multiplex transmission interval between two subsequent transmission symbols, as required by Applicants' Claim 7.

Therefore, Sakoda fails to teach every feature recited in Applicants' Claim 7, so that Claim 7 is believed to be patentably distinct over Sakoda. Accordingly, Applicants respectfully traverse, and request reconsideration of the rejection based on Sakoda.[1]

Independent Claim 8 is amended to recite "by controlling the number of modulation levels used for each user by increasing or decreasing the number of levels used within a digital modulation scheme." These features find non-limiting support in Applicants' disclosure as originally filed, for example in the specification at p. 26, starting at l. 7. Independent Claim 29, directed to a radio transmitting apparatus, is amended to recite a similar feature.

Applicants respectfully submit that such a feature is also not taught by the reference Sakoda. Sakoda explains that his transmission configuration uses bit streams of the same transmission rate are subjected to coding units 122a-122n and symbol mapping units 123a-

[1] See MPEP 2131: "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference," (Citations omitted) (emphasis added). See also MPEP 2143.03: "All words in a claim must be considered in judging the patentability of that claim against the prior art."

123n, and are mapped to transmission symbols. (Sakoda, col. 12, ll. 17-31, Fig. 11.) Sakoda gives some examples how the mapping may be performed, for example by a QPSK processing, a 8-PSK processing, or a 16-QAM processing. (Sakoda, col. 12, ll. 31-36.) However Sakoda fails to teach that a ***transmission rate of the information is changed by controlling the number of modulation levels*** used for each user by increasing or decreasing the number of levels used within a digital modulation scheme, as required by Applicants' Claim 8. Nowhere in the cited passages of Sakoda there is a teaching of the adaptation of a number of modulation levels. As explained above, Sakoda may merely adapt the transmission rate by introducing a calculated number of null symbols into a transmission frame.

Accordingly, Sakoda fails to teach every feature recited in Applicants' Claim 8, and therefore Applicants traverse, and request reconsideration of, the rejection based on Sakoda.[2]

Independent Claims 28-29 recite features analogous to the features recited in independent Claim 7 or 8, respectively. Moreover, Claims 28-29 have been amended in a manner analogous to the amendment to the respective independent Claim 7 or 8. Accordingly, for the reasons stated above for the patentability of Claims 7 and 8, Applicants respectfully submits that the rejections of Claims 28-29, and all associated dependent claims, are also believed to be overcome in view of the arguments regarding independent Claims 7-8.

Consequently, in view of the present amendment, no further issues are believed to be outstanding in the present application, and the present application is believed to be in condition for formal Allowance. A Notice of Allowance for Claims 7, 8, 10, 11, 13, 14, 16, 17, 19, 20, 28, 29, 31, 32, 34, 35, 37, 38, 40, 41 and 50-52 is earnestly solicited.

---

[2] See MPEP 2131: "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference," (Citations omitted) (emphasis added). See also MPEP 2143.03: "All words in a claim must be considered in judging the patentability of that claim against the prior art."

Should the Examiner deem that any further action is necessary to place this application in even better form for allowance, the Examiner is encouraged to contact Applicants' undersigned representative at the below listed telephone number.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.

Bradley D. Lytle
Attorney of Record
Registration No. 40,073

Nikolaus P. Schibli, Ph.D.
Patent Agent
Registration No. 56,994

Customer Number
22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 06/04)

BDL:NPS\mca
I:\ATTY\NPS\20's\202863US\202863US-AM-OA.10.10.2007.DOC